# 2 Port STT (Speech to Text) VoIP Module for AP-SVG3000



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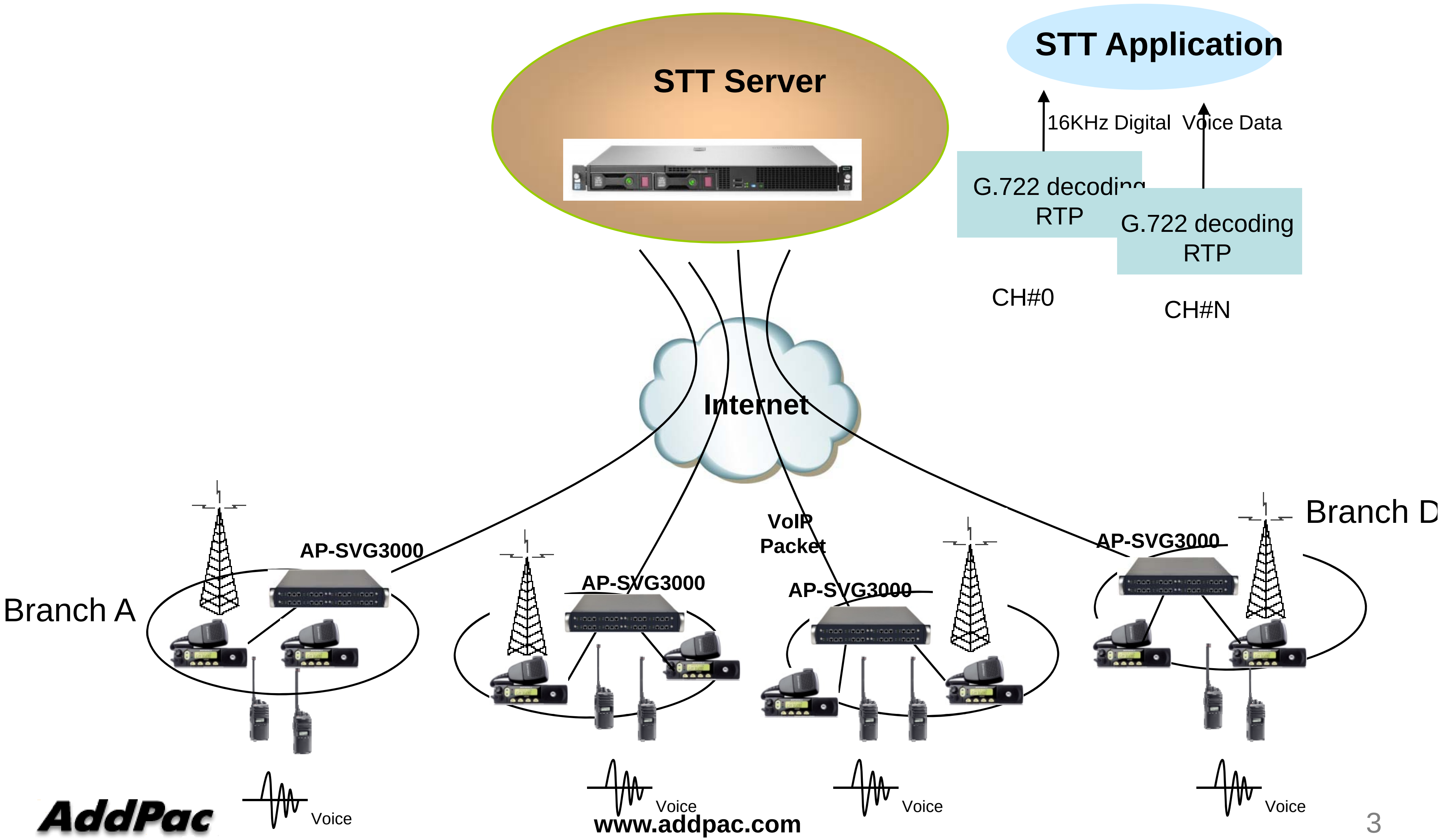
- STT VoIP Service Network Diagram
- AP-SVG3000 H/W  Platform
- AP-STT2  Module VoIP Service Features

# STT (Speech to Text) VoIP Service



# AP-SVG3000
## 8-Port STT VoIP Gateway

# Product Overview

## AP-SVG3000 8 Port STT VoIP Gateway

- H.323/SIP Dual Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- Various STT Audio Interface Module(16KHz G.722, etc) Support
- G.722(16KHz) beside 8KHzG.711/G.726, etc VoIP Codec Support for Backward Compatibility
- Independent  Octal (8) STT VoIP Gateway Module
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- SNMS (Smart Network Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- 19 Inch Rack Mountable Design with Internal Power Supply
- Four(4) VoIP Module Slot

# Hardware Specification

AP-SVG3000 8 Port STT VoIP Gateway

RISC CPU

High-end DSP

- RISC Microprocessor Computing Power
- Up to 8 Port STT VoIP Gateway
- Four VoIP Module Slots

  - 2-Port STT Audio Module Card (Audio (3.5mm), Radio(RJ45)

  -One(1) 10/100Mbps Fast Ethernet (RJ45)/ Port

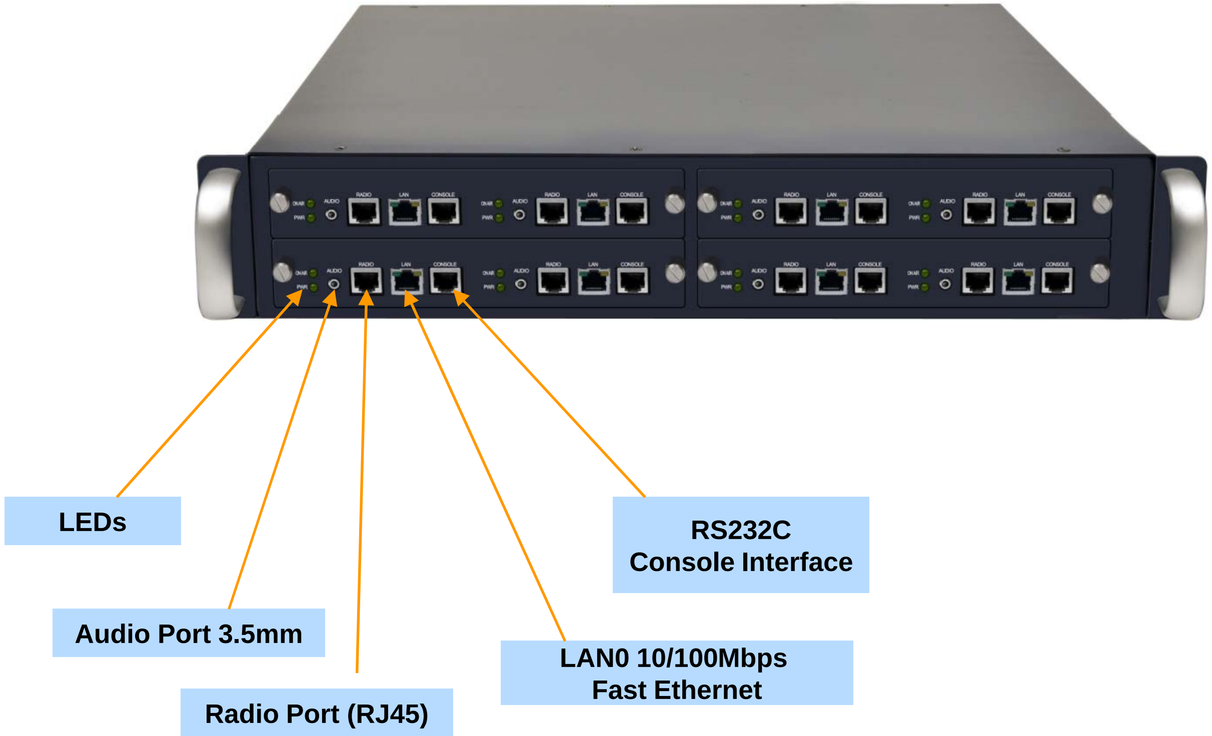
  -One(1) RS232C Console Interface (RJ45)/Port

  -Status LEDs/Port
- Internal Power Supply

# Hardware Specification

## AP-SVG3000 8 Port STT VoIP Gateway

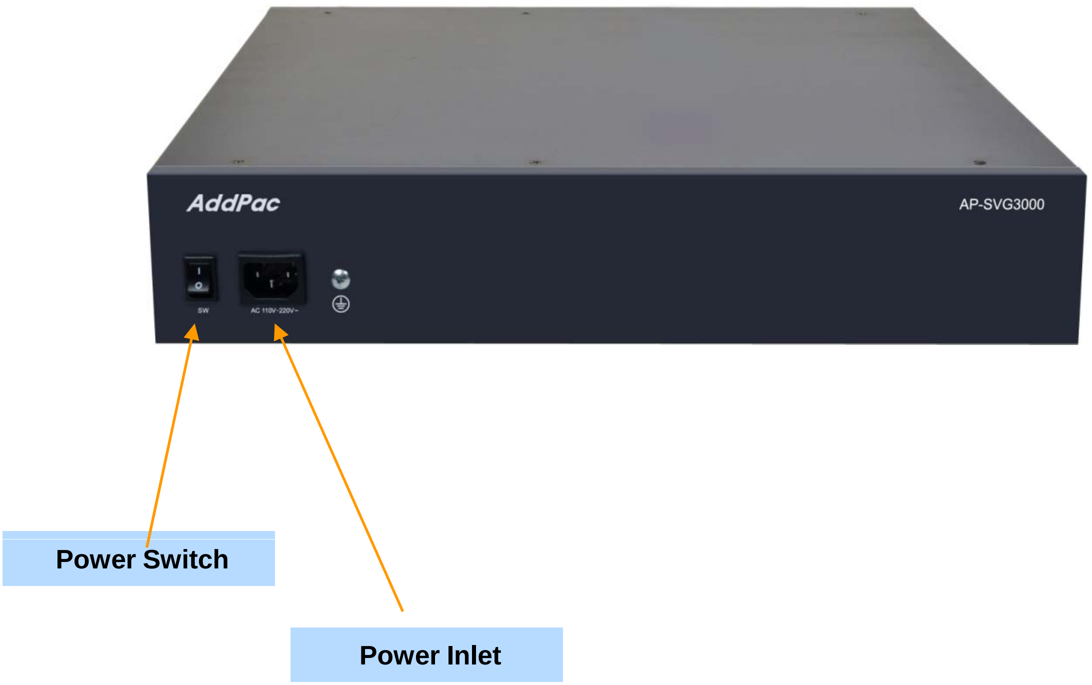
### Front Side



# Hardware Specification

## AP-SVG3000 8 Port STT VoIP Gateway

### Back Side



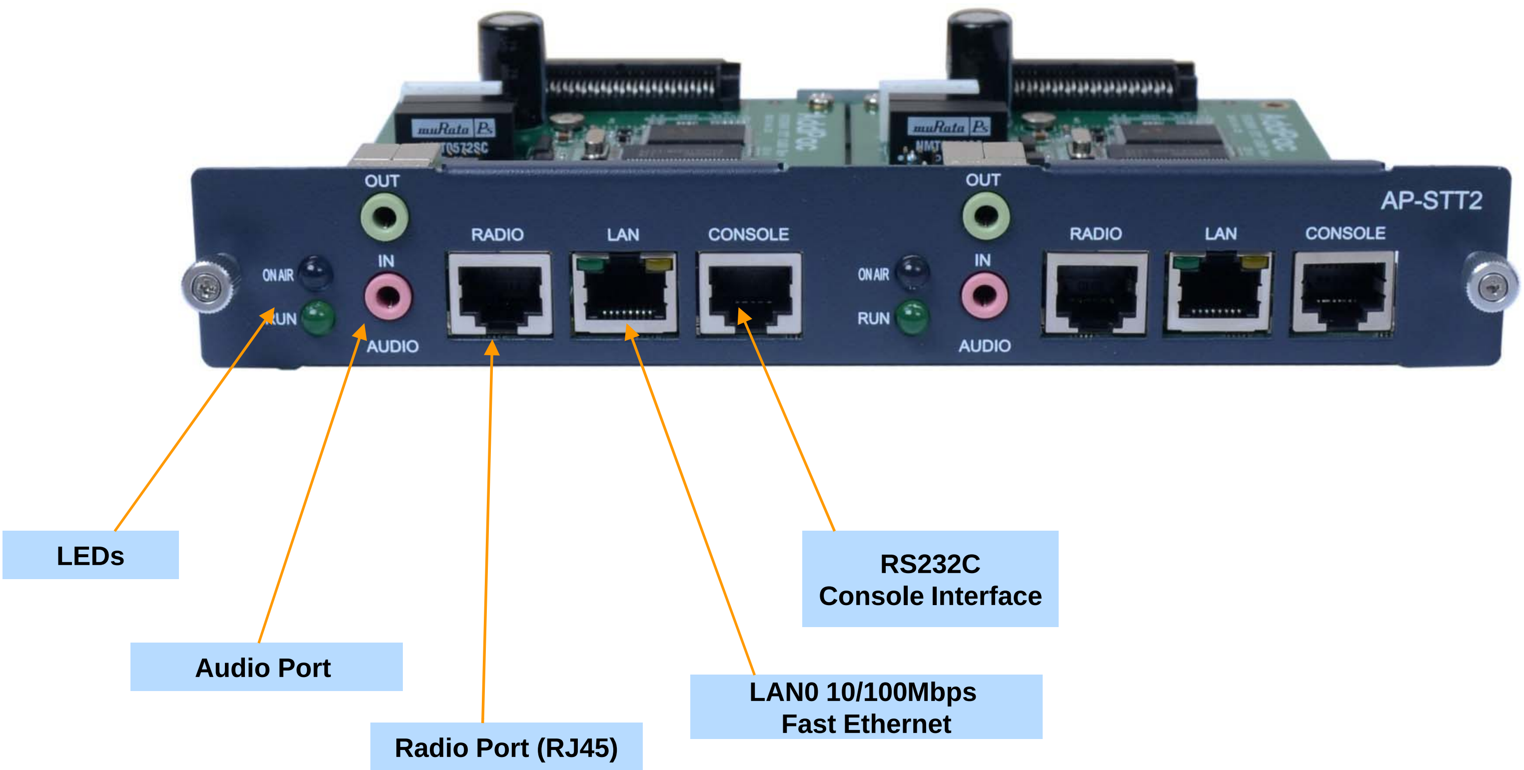
# STT2 VoIP Gateway Module

# Contents

- Hardware Specification
- Software Specification

# Hardware Specification

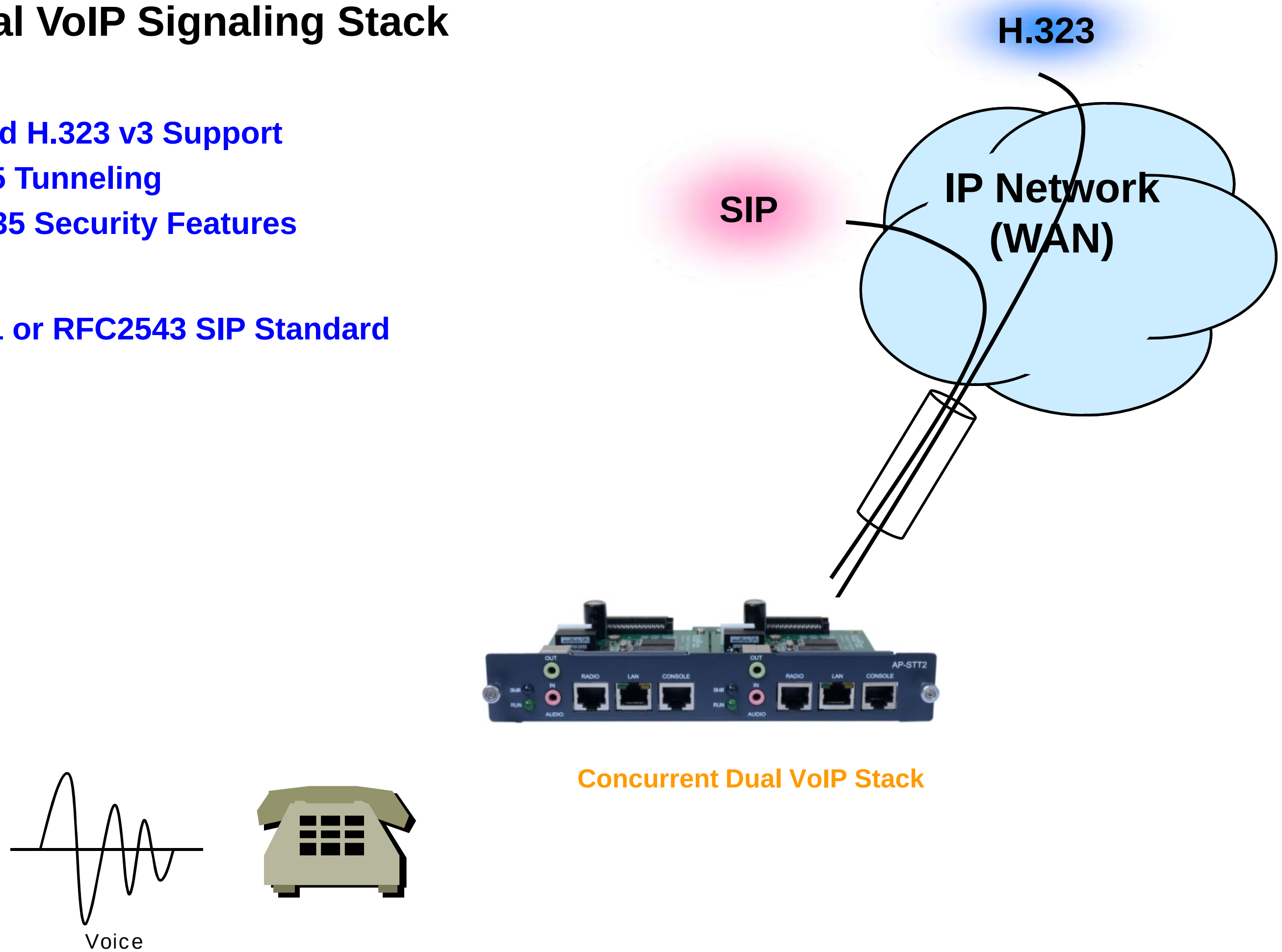
## STT2 VoIP Gateway Module



# VoIP (Voice over IP) Service

## STT2 VoIP Gateway Module

- **H.323, SIP Dual VoIP Signaling Stack**
- **H.323**
  - **ITU-T Standard H.323 v3 Support**
  - **Support H.245 Tunneling**
  - **Including H.235 Security Features**
- **SIP**
  - **IETF RFC3261 or RFC2543 SIP Standard**



# VoIP (Voice over IP) Service

## STT2 VoIP Gateway Module

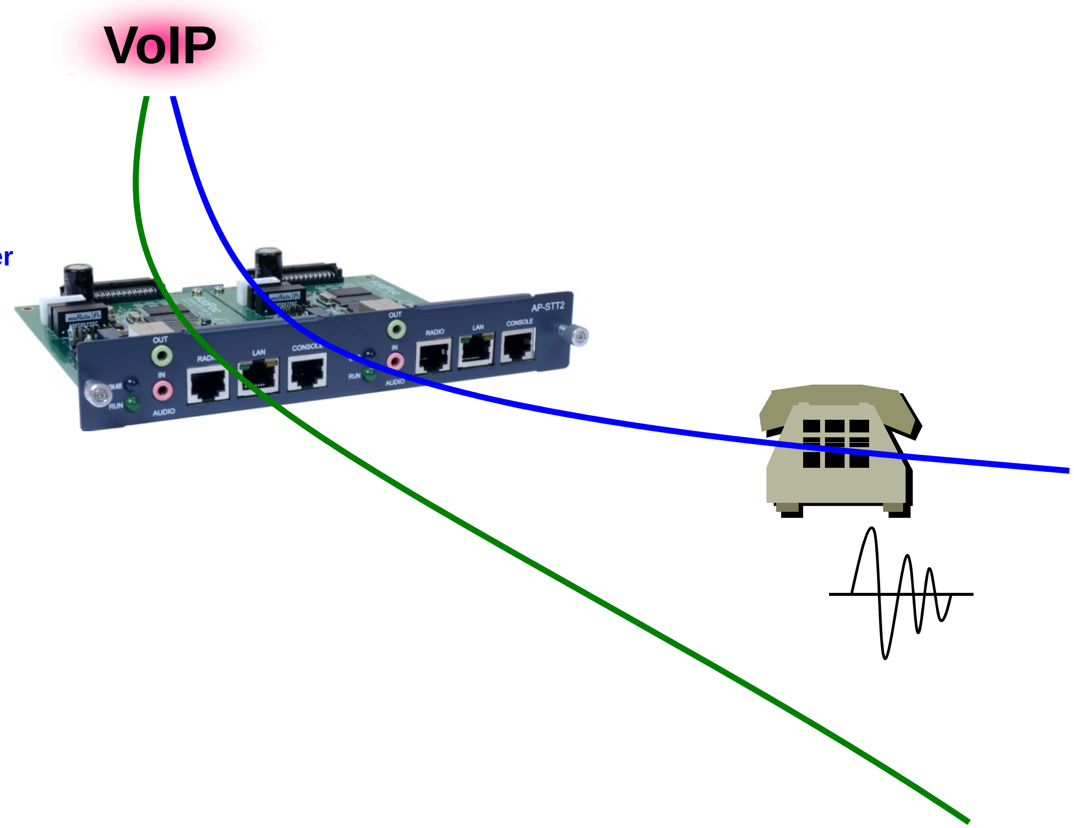
- **H.323**
  - Fast connect, normal connect support
  - H.245 tunneling support
  - Q.931 response message setting for inbound VoIP calls
  - H.245 logical channel open timing selection function
  - Start H.245 procedure support
  - DTMF / Hook flash relay with H.245 alphanumeric / signal
  - Secondary gatekeeper support
  - Gatekeeper assignment according to the domain name
  - Gatekeeper discovery with multicast
  - Lightweight RRQ support
  - Signaling TCP port assignment
  - Resource threshold setting with RAI
  - H.235 clear-token, crypto-token support
  - canMapAlias support
  - Technical prefix (supported prefix) support
  - Public IP assignment in NAT environment

- **SIP**
  - Gateway-based / Endpoint-based registration support
  - Secondary proxy-server assignment function
  - SIP signaling port change function
  - SIP proxy server assignment according to the domain name
  - T.38 real-time fax relay support
  - DTMF relay support with RFC2833 / OPTION message
  - Re-INVITE support

# VoIP (Voice over IP) Service

## STT2 VoIP Gateway Module

- **Voice Codec**
  - **G.722 16KHz**
  - **G.711 A-Law, G.711 U-Law**
  - **G.726 r16, G.726 r32**
  - **VAD (Voice Activity Detection) function support**
  - **DTMF relay support (H.323, SIP) based on RFC2833**
- **RTP**
  - **Redundant RTP packet transmission in case of severe packet loss**
  - **Dynamic jitter buffer management and RPT packet jitter and loss compensation with heuristic & DSP error concealment**
  - **Static jitter buffer setting support**
  - **Voice frame per RTP packet number control for each codec**
  - **In-band ring-back tone support**
  - **Virtual ring-back tone support**
  - **Tone parameter change support**

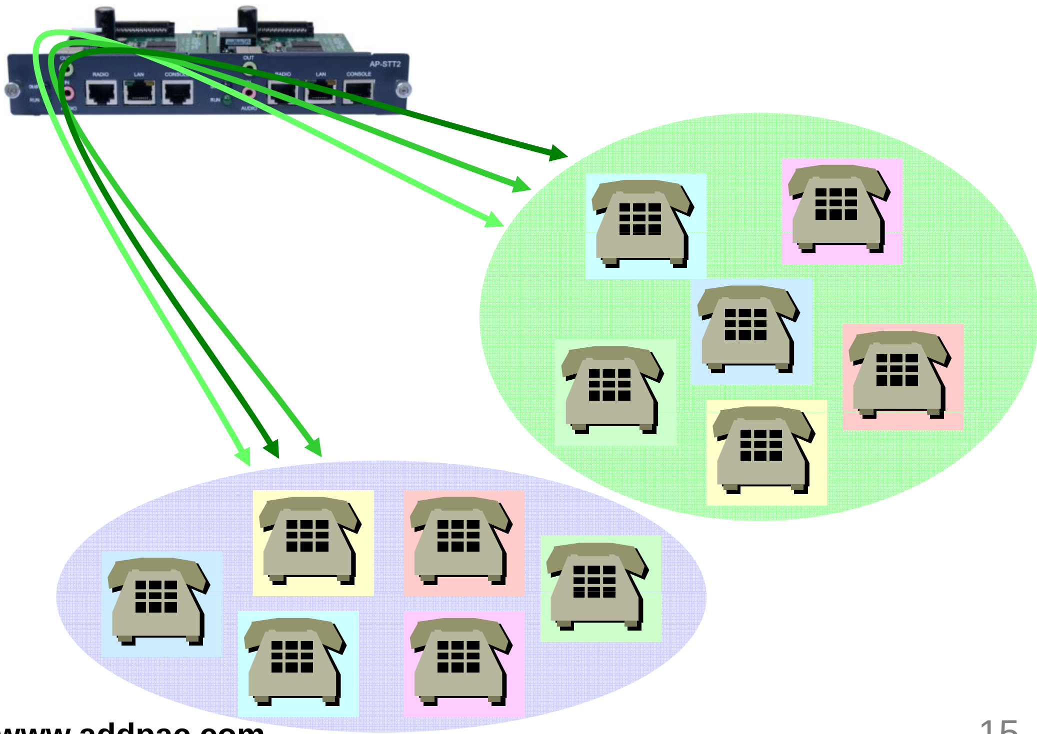


# VoIP (Voice over IP) Service

## STT2 VoIP Gateway Module

- **VoIP Call Controls**
  - **Hot line connection function with PLAR (Private Line Auto Ring Down)**
  - **Leased line emulation function**
  - **Connection monitoring function**
  - **Fault tolerant with Redundancy and Call Distribution among Gateways for load balancing**
  - **Call attempt with IP address**
  - **H.323, SIP, MGCP inbound call connection for each voice port**
  - **Multiple E.164 setting for one voice port**
  - **One E.164 or digit pattern can be assigned to more than one voice port**
  - **Hunting with Longest match/ priority/ sequence/ random**
  - **One stage call setup by Digit forwarding**
  - **Call barring with specific digit patterns**
  - **Calling and called number conversion for PSTN outbound calls**
  - **PSTN rerouting in case of VoIP call attempt failure**

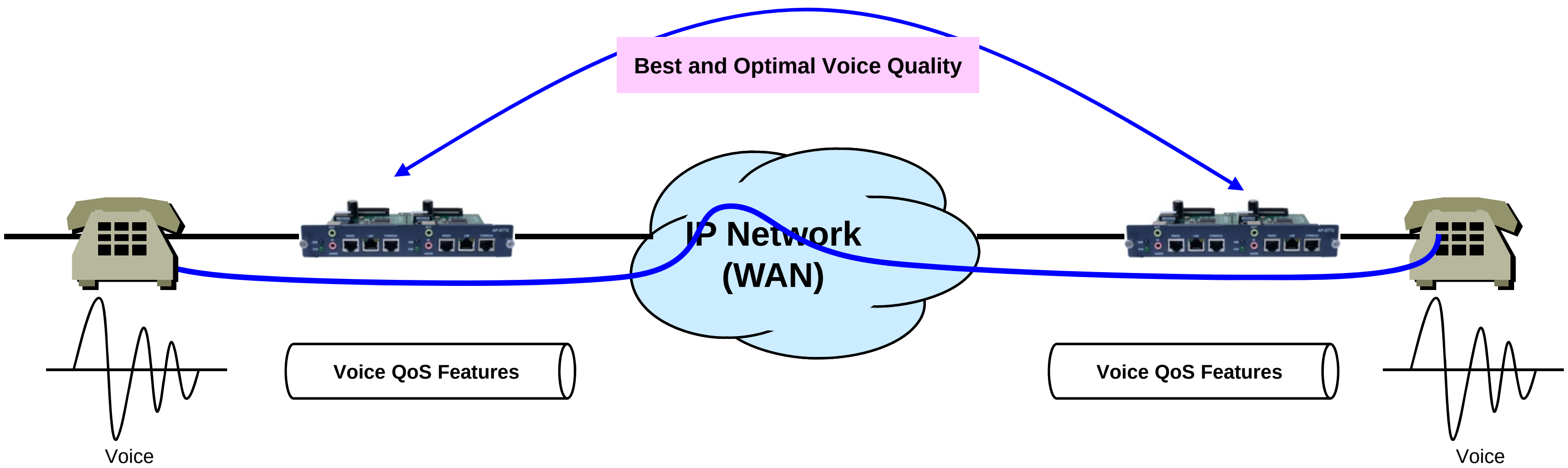
- **VoIP Call Controls (cont.)**
  - **Call transfer for internal calls**
  - **Call pickup for internal calls**
  - **Calling and called number conversion for VoIP outbound calls**
  - **Calling and called number conversion for VoIP inbound calls**
  - **Fax broadcasting call control**



# Advanced QoS Features

## STT2 VoIP Gateway Module

- **Enhances Transmit Voice QoS Features**
  - **Voice Traffic Priority Queuing**
  - **QoS Service Profiling**
  - **Providing Virtual Network Transmit Algorithm**
  - **Real-time Voice Traffic QoS Support**
  - **RTP Packet Transmit Interval Control**
  - **Supporting RTP Packet Redundancy Scheme**
  - **IP Header Control such as ToS, Diffserv**
- **Enhances Receive Voice QoS Features**
  - **Dynamic Jitter Buffer Management**
  - **Error Concealment**
  - **Support T.38 FAX Data Error Recovery Scheme**



# Network Protocols

STT2 VoIP Gateway Module

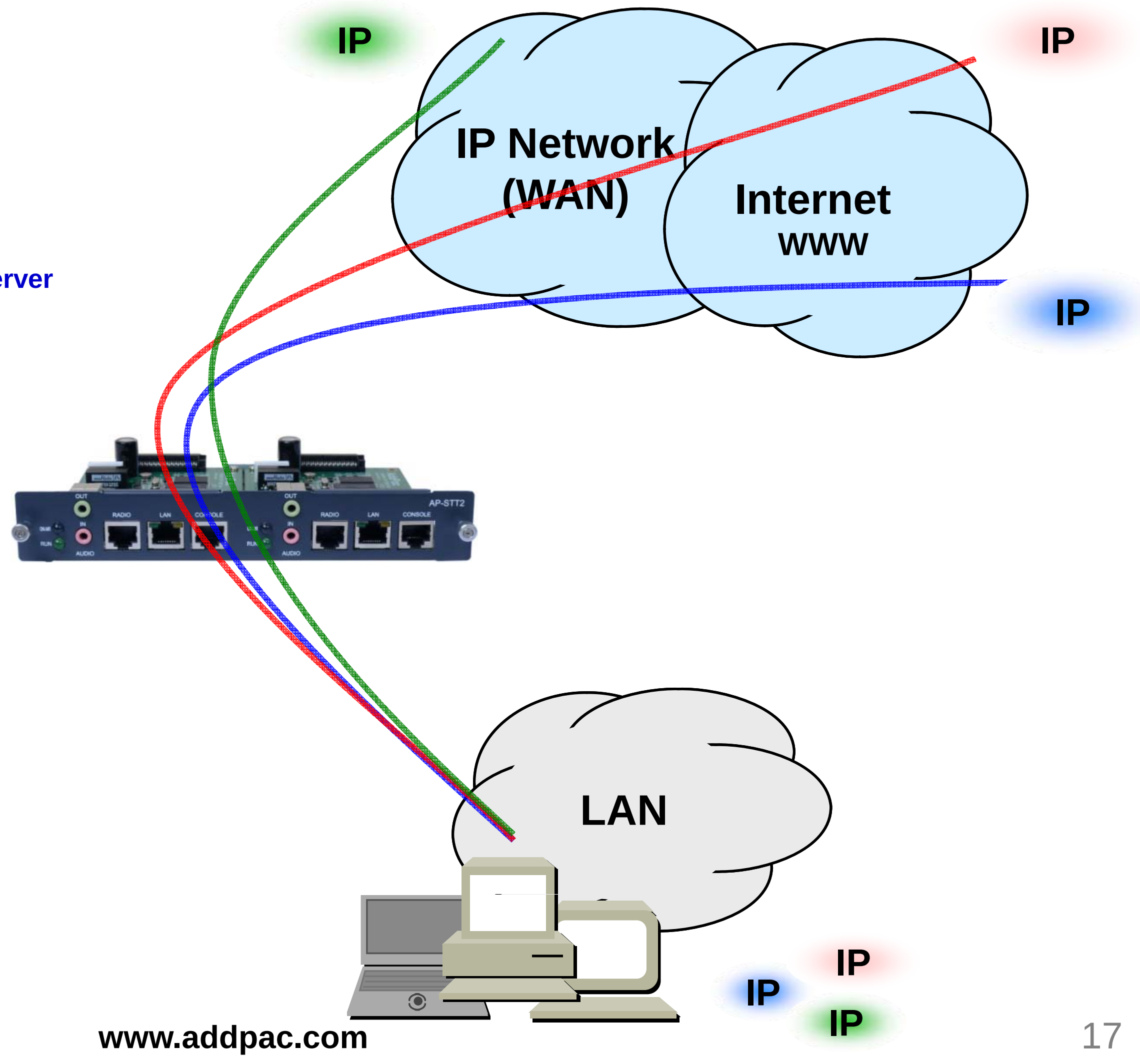
**Basic Network Protocols**
- ARP, IPv4, TCP, UDP, ICMP, SCTP, IGMP, MLD

**Routing Protocol**
- IPv4 : Static

**Service Protocol**
- FTP, Telnet, TFTP, DHCP Server/Relay, SNMP Server
- CDP (Cisco Discovery Protocol)
- DNS Resolver , DDNS(nsupdate)
- Bridge
- Syslog

**IPv4 Address Configuration**
- Fixed (Static)
- DHCP
- PPPoE

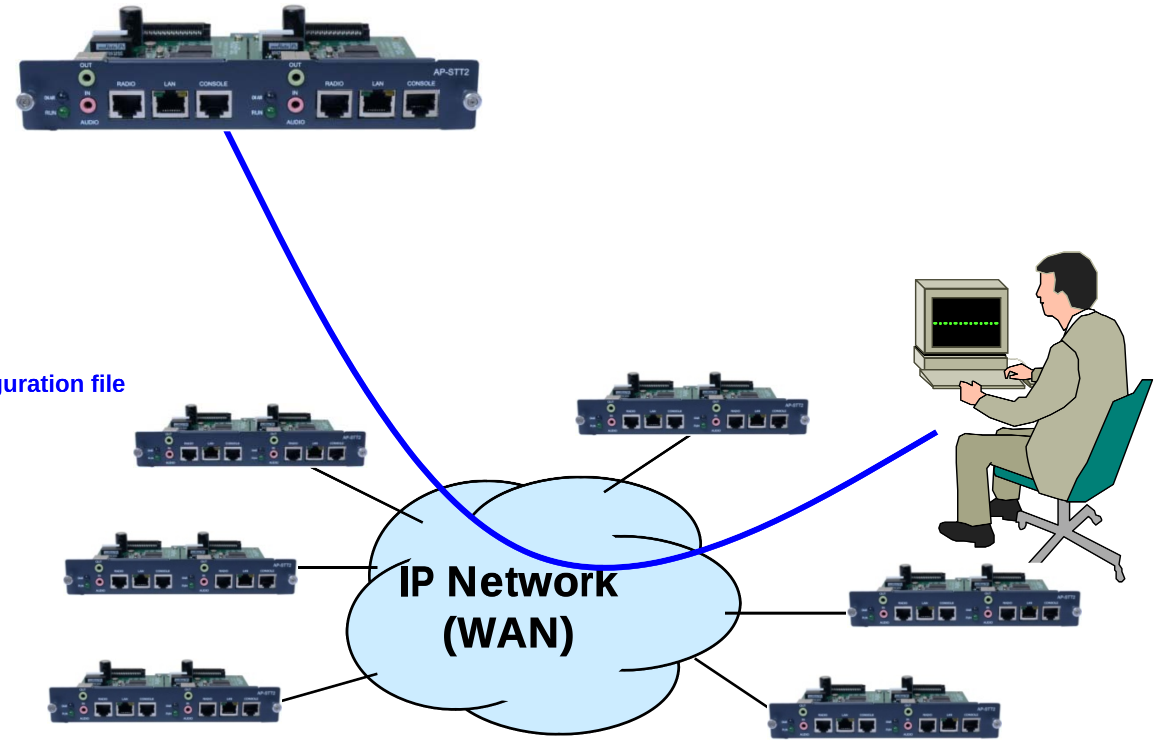
**Miscellaneous**
- Cisco Style CLI
- Standard & Extended IPv4 Access List
- Multi-level User Account Management
- IP accounting
- STUN Client



# Network Management

## STT2 VoIP Gateway Module

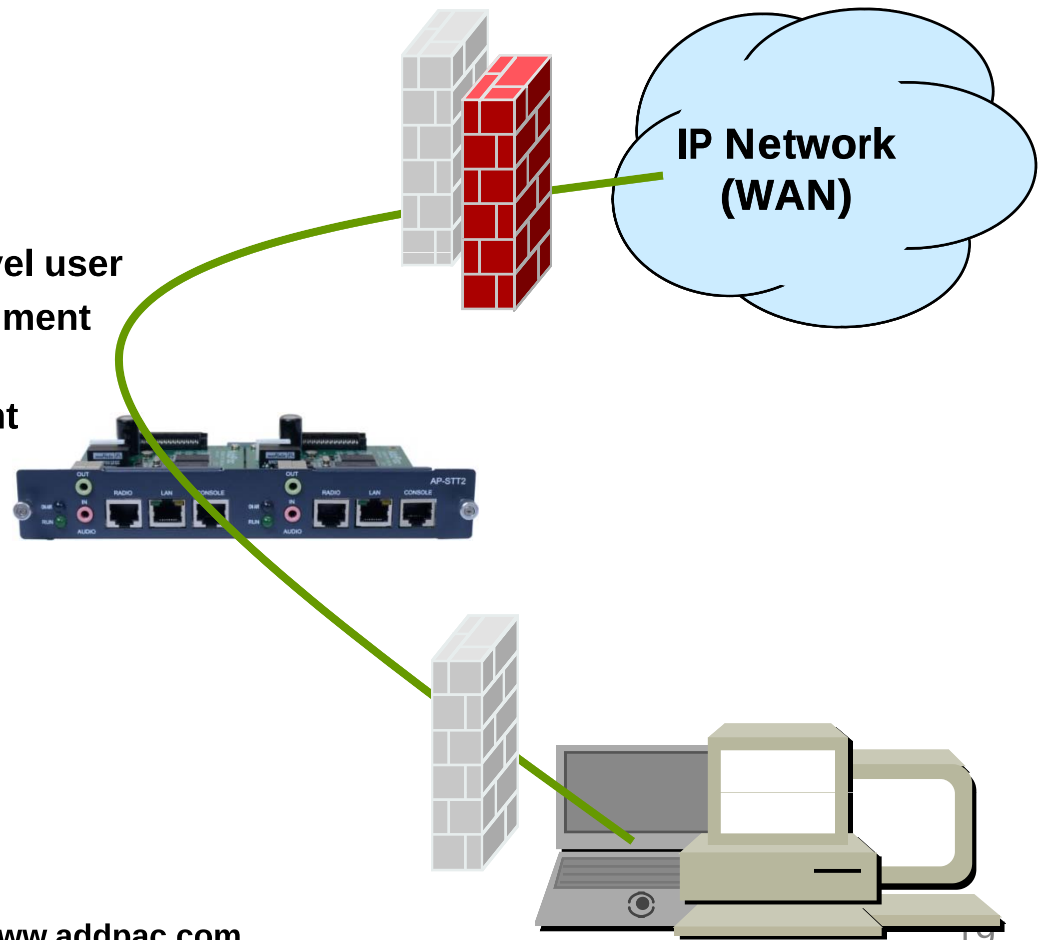
- **SNMP**
  - Standard Simple Network Management Protocol( SNMP) Agent support
  - MIB v1 and v2 Support
- **Web-based Management**
  - Smart Easy Setup
  - Standard Voice Interface
  - Standard PSTN Back-up Interface
- **Watch-dog Function**
  - Hardware, Software watch-dog services
- **Remote Management**
  - Telnet
  - Rlogin
- **Auto Upgrade Service**
  - HTTP server based APOS image and configuration file auto-upgrade support
- **Batch Job Function**
  - Text based script downloading
- **Interoperable with AP-VPMS Service**
  - AddPac VoIP Plug & Play Management System (AP-VPMS)



# Security Management

## STT2 VoIP Gateway Module

- **IP packet filtering**
- **IP access list**
- **User authentication function**
  - Password Authentication Protocol (PAP)
  - Challenge Handshake Authentication Protocol (CHAP)
- **Enable/Disable specific protocols**
- **Auto-square connect of Telnet session**
- **Account Management function for multi-level user**
- **SNMP/TELNET/FTP/HTTP/TFTP port assignment function**
- **SNMP/TELNET/FTP access list management**
- **Boot mode security checking function**



# Thank you!

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